

NOTES ON THE HOME LIFE OF THE TURKEY VULTURE

BY RUSSELL MARSHALL KEMPTON

On a May day in 1921, while hunting the Crow (which is very destructive to our song birds' eggs and nestlings) I flushed a Turkey Vulture. As it arose to flight from the ground, I investigated and found a nest in a hollow maple tree containing two young Turkey Vultures a day or so old.

This nest is located in a sixteen acre tract of woodland, (returning to virgin state as it has not been pastured for a number of years) on the John L. Kempton farm, Wayne County, Indiana, southwest section eight, township sixteen, range fourteen.

The nest is in a live soft maple tree, whose trunk slants on a sixty degree angle east by north and has a southern exposure; inside dimensions of the cavity are diameter twenty-eight inches; height, forty-two inches and its bottom is about forty inches from ground. The top of the cavity is closed by dry decayed wood. The surrounding ground is swampy and during wet seasons water stands thirty inches deep around the base of the tree.

The nest is unlined, and eggs were deposited on clean broken up punk, which the parents broke from sides and top of cavity with their beaks. It was always clean (also the ground around the tree), from the time the eggs were laid until the nestlings left the nest. No offensive odors were noted during the five years of observation, (except when the nestlings would regurgitate for me).

This nest has been used each year since 1921. I had no way of knowing whether it was the same pair who returned each year, until 1926 when through the kindness of Mrs. Percival Brooks Coffin I was supplied with bands.

In 1921 the two week old nestlings were discovered dead in the edge of a cornfield adjoining the woodland. They were killed and carried there by hunters or animals.

In 1922 the two nestlings matured. The 1923 youngsters, one matured, and the other was killed as in 1921. In 1924 the pair matured and left the nest in late August.

In 1925 the following observations were recorded.

The parent birds arrived in the last week in March. The two eggs were deposited April 24 and 26; they were elliptical ovate, and about three and one-half inches by one and three-quarters inches, one being slightly smaller. The color was greenish-blue with irregular clotted blood colored spots on each end. The eggs lose their color

during incubation, becoming lighter to a greenish-blue grey. The change is partly due to the oils from the brooding bird's breast, and partly to changes within the egg. Brooding began immediately after the second egg was deposited. The birds were tame and often did not leave their nest if approached quietly. The mother bird did not leave the nest during last week of incubation and could be handled. She was pugnacious by regurgitation of her meal, which is re-eaten from the nest after one leaves.

The two nestlings were hatched May 24. They were about the size of young goslings, covered with thick, light egg-yolk yellow down. The head was naked; a line about three-quarters inch extended down the throat to the naked breast bone. Down started to grow on the head after twenty-one days, making a white cap which does not disappear until bird reaches maturity. Black primary feathers appeared at the end of four weeks, while the breast and top of head were still covered with down. The tail feathers were slower in developing than the wing feathers. The young matured slowly. They were tame and could be handled without much ejection. Both parents fed the young by regurgitation.

These nestlings left the nest on August 20, and after a bit of tree climbing, flew, leaving the woodland on September 1. The white cap of down was rather noticeable at the age of eighty-eight days. Before flight, they climbed the slanting tree trunk using wings, beak, and tarsus, with talons as hooks.

The following observations were made in 1926.

The parent birds arrived March 18, and used the same nest to roost in during the cold wet spring. On several occasions during daylight in April, I found them in the nest standing with heads together, and they did not fly when I approached within ten feet of the tree. Visiting the nest on April 28, I watched them preparing the nest, by pulling at the dry rotten wood on the side walls of the cavity with their beaks. When a large piece came loose the female would hold it down with one foot and tear it into small bits, which she spread about on the floor, where the eggs were to be deposited. The interested male bird, was a hindrance in nest making, and every now and then the female placed her head under his breast and pushed him out of the way. Once he tumbled out of the tree. However, undaunted, he clambered back keeping his head down, so that his mate could not repeat her attack, and more in the way than before. But just at this time they discovered me watching and flew. The sudden beating of

their pinions on the air made a swishing noise like escaping steam from the safety valve of an engine.

The eggs were laid, one April 29, and the other May 2. Hatched May 30. The young were vigorous and combative, jumping at me, hissing, throwing their vile breath, regurgitating and exuding, whenever they were disturbed. The first primary feathers were visible on June 14.

The nestlings' method of locomotion is similar to a crawl, as they do not stand on their feet like our domestic fowls, when hatched. They use the tarsus, with toes spread, and balance themselves by the tips of their wings in moving about, as if they were a four-footed creature. As the bones and muscles develop, they gradually rise to a standing position, and on leaving the nest on July 26 they climbed up the slanting trunk to a short limb just above the nest. There they were found sitting side by side during the day until August 5, when they flew from the woodland.

I will give the following description of the young birds on July 26: Color, grayish brown, wings and tail quills toward tips almost bright black, bill grayish black, legs and feet a light green gray. White down was scattered throughout the feathers. The wing-spread was about forty-eight inches. One weighed six pounds, the other four pounds four ounces. The lighter bird had a more vicious disposition, and the other was sulky.

The young vultures were photographed August 5, 1925, by Miss Hilda Olson, of Arlington, Massachusetts. However she obtained but one successful photograph because the light was poor and she attempted to secure them while the birds were in the nest. On July 26, 1926, Miss Olson photographed the nestlings. This photograph shows their immature and strange appearance. They were removed from the nest and carried one hundred yards away to a fenced enclosure, because the light was too bad for them to be photographed on the limb just above the nest. They were unruly and ran at a fair rate of speed for the cover of weeds and bushes when they were put on the ground. They were very awkward, wobbled and easily lost their balance, but did not attempt to fly. The four pound bird acted very like a pugnacious sitting hen, putting all of us to flight at times. The other bird sulked, with his head tucked almost between his legs, but was quiet.

Before photographing the young vultures they were banded by Miss Olson, assisted by Miss Kempton, and Mr. Jno. L. Kempton of Richmond, Ind. Banding was under Mr. Percival Brooks Coffin's

license and the bands were numbers 320310 and 320311. The birds were just ready to fly when banded.

Since August 5, (the date of leaving the woodland) the parents and young birds have been seen on several occasions soaring over the farm. The caps of down of the young vultures were still discernible September 27.

During 1926 records were made of the parent vultures' activities in rearing their nestlings. Both birds alternately covered the eggs during incubation. When disturbed they flew overhead, and would come down as close to me as the bushes and tree branches allowed, with safety, say about ten feet, but, at no time did they try to regurgitate upon me from the air.

Wishing to ascertain the kind of food given to the young birds, I placed a freshly killed dog upon a brush pile near the nest. They did not disturb it. As far as I could observe their food consisted of all dead domestic herbivorous animals, almost all dead wild herbivorous animals and fowls in this locality; and a reptile was evidently a choice relish, because one dead snake will call fifty vultures, more or less, to the vicinity of its demise.

The pair of nestlings of the year 1925 were eighty-eight days old when they left the nest, and the ones of this year 1926 were sixty-six days old. The reasons for this difference I placed in the following order of importance: (a) A richer and more plentiful food supply in 1926 than during the season of 1925; (b) a better feeding of nestlings by parent birds in 1926—often during observations in 1925 I concluded that the youngsters were hungry; (c) a more vigorous male vulture.

The observations have been made and recorded without the aid of any knowledge of the work of other writers on this species.

This year (1926) I also found the location of another Turkey Vulture's nest on a nearby farm. It was in a large old sycamore tree forty feet from the ground. This tree was blown down during a storm and examination disclosed a hollow, near the top of the main trunk, similar to the nest near the ground in the Kempton woodland, but smaller. Continued observations will be carried on during 1927 concerning the activities of the pair of banded nestlings, and every effort will be made to band the parent vultures, if the same nest is used by them in 1927 or if they can be located elsewhere.

CENTREVILLE. INDIANA.